

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL COAST REGION**

81 Higuera Street, Suite 200
San Luis Obispo, California 93401-5427

ORDER NO. 93-69 *SWIS NO. 42-AA-0015*

**WASTE DISCHARGE REQUIREMENTS
FOR
COUNTY OF SANTA BARBARA, DEPARTMENT OF PUBLIC WORKS
TAJIGUAS CLASS III LANDFILL
SANTA BARBARA COUNTY**

The California Regional Water Quality Control Board, Central Coast Region (hereafter Board), finds:

1. The County of Santa Barbara, Department of Public Works (hereafter "Discharger") owns and operates the Tajiguas Class III Landfill (hereafter "Landfill").
 2. The 130-acre Landfill is located north of Highway 101, approximately 23 miles west of the City of Santa Barbara, in Sections 28 and 33, T5N, R31W, SBB&M, as shown in Attachment A, which is included as part of this Order. The County also owns 282 acres immediately north of the existing landfill for possible future expansion.
 3. These Waste Discharge Requirements (WDR) are being revised/updated to incorporate criteria currently applicable to solid waste disposal sites, particularly:
 - a. criteria established in California Code of Regulations, Title 23, Division 3, Chapter 15 (Chapter 15), including Article 5, pertaining to landfill water quality monitoring and response programs, as amended July 1, 1991;
 - b. criteria established in California Code of Regulations, Title 14 (Title 14), Division 7, Chapter 3, Article 7.8; Chapter 5, Article 3.4; and Chapter 5, Article 3.5, pertaining to Closure and Post-Closure Regulations; and
 - c. criteria established in 40 CFR Parts 257 and 258 Solid Waste Facility Disposal Criteria, Final Rule (Known as "Subtitle D"), as promulgated October 9, 1991.
- Timely implementation of current monitoring requirements and pertinent changes, including compliance with state and federal landfill regulations, will bring the landfill into compliance.
4. The discharge began in 1967, and has been regulated by the Board since 1970. This Order revises, updates and replaces WDR Order No. 85-88, adopted by the Board on June 14, 1985.
 5. Land use within one mile of the Landfill is predominately open space and agriculture related, though some residential, commercial and industrial uses exist. Local agriculture includes cattle grazing and orchards (avocado). To the west of the Landfill is an inactive gas plant. Arroyo Quemado, a small residential community, is located south of the Landfill near the Pacific Ocean.
 6. The Landfill is located within the 390 acre Canada de la Pila Watershed. The Landfill's surface water drainage system conveys both runoff from the landfill surface as well as runoff from the 250 acre northern part of the Watershed. The drainage system discharges to Canada de la Pila, an ephemeral stream, at a point approximately 2,000 feet north of the Pacific Ocean.

7. The Landfill is located on the southern side of the Santa Ynez Mountains where moderately to steeply south-dipping sedimentary rocks are exposed at the surface, as shown on Attachment C included as part of this Order. From south to north, the Landfill tertiary strata (geologic formations adjacent to or below the Landfill) include:
 - a. The Monterey Shale consists of well-bedded foraminiferal siltstone with some carbonate and tuff interbeds. Minor folds and faults are present in the Monterey Shale, generally not in the Rincon Shale or Vaqueros Sandstone.
 - b. The Rincon Shale is fairly uniform, about 1650 feet thick, and consists of mudstone with minor interbedded dolomitic concretions, tuffs and bentonite.
 - c. The Vaqueros Sandstone is about 450 feet thick, consists of fossiliferous, coarse to very coarse-grained, calcareous sandstone with crossbedding up to 30 feet thick.

North of the Landfill (i.e., the proposed expansion area), the strata (south to north) include: the Vaqueros Sandstone, Sespe, Algeria, and Gaviota formations. These strata are locally overlain by Quaternary alluvium and colluvium up to 45 feet thick.
8. The soils underlying the Landfill generally consist of low-permeable clays and sandy loam typical of the Rincon, Vaqueros and Quaternary Alluvium formations. The impervious nature of these soils preclude infiltration below the shallow weathered surface layer. The permeability of moderately weathered Rincon Shale was determined, by packer test, to be on the order of magnitude of 10^{-7} centimeters per second (cm/s) (10^{-8} for unweathered and 10^{-6} for weathered). Underlying a narrow (about 125 feet wide) strip along the northern edge of the Landfill is the Vaqueros Sandstone formation.
9. Four hydrologic units have been identified at the Landfill, which include:
 - a. The Unconsolidated Quaternary Alluvium overlies the Vaqueros, Rincon, Monterey and other geologic formations along the Canada de la Pila stream valley. There is unconfined ground water approximately 15 to 25 feet below ground surface and probably extends up the canyon. Groundwater generally follows surface water flow which is southerly.
 - b. The Monterey Shale is south of the Landfill. The Monterey Shale aquifer is apparently recharged from the overlying unconsolidated deposits and locally under unconfined conditions. Ground water occurs primarily within the weathered bedrock, which extends approximately 4 feet below the contact with the overlying unconsolidated deposits and within fractures through unweathered bedrock.
 - c. The Rincon Shale lies beneath the majority of the Landfill. Although the Rincon Shale has low permeability and is not believed to be water bearing, investigations of the Rincon Shale within Canada de la Huerta (about 1,800 feet west of the Landfill) indicate the weathered Rincon locally contains small amounts of water where it is overlain by water-bearing unconsolidated deposits.
 - d. The Vaqueros Sandstone is beneath the north portion of the Landfill. A low yield water well (i.e., Tajiguas Well) exists in the Vaqueros west of the Landfill's northern limit. Depth to water in this well is approximately 250-300 feet. The Tajiguas Well supplies domestic water to the Landfill. A former gasoline station located along Highway 101 south of the Landfill was previously supplied water from the Tajiguas well, but the station has been purchased and decommissioned by the Discharger. Although the Vaqueros aquifer is not a major ground water basin, it is used for domestic purposes east and west of the Landfill.

10. Trace volatile organic compounds (VOCs) have been detected in ground and surface waters according to the May 1991 Solid Waste Assessment Test for the Landfill (SWAT) report and subsequent monitoring reports. Samples from monitoring wells located south of the Landfill have been found to contain 1,4-dichlorobenzene, 1,2-dichloroethane, 2-chlorobenzene, 1,2-dichlorobenzene, ethylbenzene, and toluene. Surface water samples from near the toe of the Landfill have contained 1,1-dichloroethane, toluene and xylene. Trace VOCs have also been detected in soil 700 feet north (up canyon) of the Landfill. The extent of VOC contamination in the Unconsolidated Quaternary and the Monterey Shale aquifers has been at least partially evaluated.
11. The Discharger has installed a ground water/leachate collection and removal system (GLCRS) near the Landfill toe. The GLCRS consists of a trench excavated into the Rincon Shale which contains a basal drain system below gravel fill that feeds to a central pump. A leachate storage tank holds the extracted leachate until it can be used for dust control or other uses. When dust control is not possible, leachate migrates past the landfill boundary. The Discharger is investigating the possibility of spray irrigating leachate on vegetated landfill slopes during wet weather periods.
12. The site currently receives approximately 1,000 tons per day of nonhazardous municipal solid waste from Santa Barbara City, Goleta, Carpinteria, and local unincorporated areas. As other landfills close, more communities may request to use the Landfill. It is estimated that the 130-acre site has a capacity of approximately 7.0 million tons, which has almost been reached. The existing Landfill is expected to reach its capacity during 1998. Waste disposal at the site is performed by the "ramp" or "area" type method. Waste cells (lifts) are usually fifteen feet high and are covered with six inches of compacted soil at the end of each day. Current operation plans show a final fill elevation of 500 feet above mean sea level.
13. The Water Quality Control Plan, Central Coastal Basin (Basin Plan) was adopted by the Board on November 17, 1989, and by the State Water Resources Control Board on August 16, 1990. The Basin Plan incorporates statewide plans and policies by reference and contains a strategy for protecting beneficial uses of State waters. This Order implements the Plan's water quality objectives.
14. Present and anticipated beneficial uses of Canada de la Pila are not specifically listed in the Basin Plan. Presumed beneficial uses include wildlife habitat and non-contact water recreation.
15. Present and anticipated beneficial uses of ground waters downgradient of the discharge are primarily agricultural supply, but may include domestic and industrial supply.
16. The Landfill's operation complies with the solid waste handling and disposal objectives established in the 1985 Santa Barbara County Solid Waste Management Plan. Solid Waste Facility Permit No. 42-AA-015 was issued by the California Integrated Waste Management Board, and is currently being considered for renewal.
17. The Landfill is suitable for receiving waste classified as nonhazardous solid waste, based on criteria set forth in Chapter 15. The Landfill regularly accepts domestic water and wastewater sludge provided its moisture content does not exceed fifty percent (50%) by weight.
18. Wastes containing greater than one percent (>1%) friable asbestos are classified as hazardous under CCR, Title 22. Since asbestos does not threaten ground water quality, Section 25143.7 of the Health and Safety Code permits its disposal in any landfill, providing waste discharge requirements specifically permit the discharge and the wastes are handled and disposed of in accordance with all applicable State and Federal statutes and regulations.
19. Due to revisions to Article 5 of Chapter 15, which went into effect July 1, 1992, the Discharger's existing monitoring programs for ground water, surface water, and the unsaturated

- zone needs revision. Financial assurance for existing and potential corrective action also must be established. To comply with Article 5, the Discharger submitted the June 30, 1992, Water Quality Program and Financial Assurance Cost Estimate, Tajiguas Landfill, Santa Barbara County, prepared by EMCON Associates. The Landfill currently meets all other Chapter 15 criteria for classification as a Class III landfill suitable to receive nonhazardous solid wastes.
20. On October 9, 1991, the Environmental Protection Agency (EPA) promulgated regulations pertaining to solid waste disposal facilities known as 40 CFR, Parts 257 and 258 Solid Waste Disposal Facility Criteria, Final Rule (also known as Subtitle D). Subtitle D implementation/applicability is as follows:
- MSW Landfills with WDR's that stopped receiving waste on or before October 9, 1991 are exempt from Subtitle D except for monitoring requirements and deed restrictions.
 - Units that receive waste on or after October 9, 1991, but stop prior to October 9, 1993, must only meet the final cover requirements specified in Section 258.60(a).
 - Units that receive waste on or after October 9, 1993 must comply with all requirements of Subtitle D.
- Subtitle D became effective on October 9, 1993 (except subpart G, financial assurance requirements, which become effective April 9, 1995).
21. Discharge of waste is a privilege, not a right. Authorization to discharge waste is conditional upon the discharge complying with provisions of Division 7 of the California Water Code and with any more stringent effluent limitations necessary to implement the Basin Plan, to protect beneficial uses, and to prevent nuisance. Compliance with this Order should assure conditions are met and mitigate any potential changes in water quality due to the project.
22. These Waste Discharge Requirements contain prohibitions, specifications, water quality protection standards and provisions intended to mitigate and avoid impacts of the project on water quality. These waste discharge requirements are for an existing facility and are exempt from provisions of the California Environmental Quality Act (Public Resources Code, Section 21000, et seq.) in accordance with Section 15301, Chapter 3, Title 14, of the California Administrative Code.
23. On August 20, 1993, the Board notified the Discharger and interested agencies and persons of its intent to update and revise waste discharge requirements for the discharge. The Discharger and interested parties have been provided a copy of the proposed order and an opportunity to submit their written views and comments.
24. After considering all comments pertaining to this discharge during a public hearing on November 12, 1993, this Order was found consistent with the above findings.
- IT IS HEREBY ORDERED**, pursuant to authority in Section 13263 of the California Water Code, the County of Santa Barbara, Department of Public Works, its agents, successors, and assigns, may discharge waste at the Tajiguas Class III Landfill providing compliance is maintained with the following:
- Throughout these requirements footnotes are listed to indicate the source of requirements specified. Requirement footnotes are as follows:
- a = Title 23, Chapter 15
 - b = Title 14
 - c = Basin Plan
 - d = CFR Part 257 and 258
 - e = Standard Provision (Adopted January, 1984)
 - f = California Water Code
- Requirements without footnotes are based on professional judgement.

A. DISCHARGE PROHIBITIONS

1. Discharge to areas outside the designated disposal area, as specified in the most current version of the Operations Plan and identified in Attachment B, is prohibited.
2. Discharge of hazardous wastes (as defined in Chapter 15), except for waste that is hazardous due only to its asbestos content, is prohibited.^a
3. Discharge of designated waste is prohibited except when the discharger demonstrates to the Executive Officer's satisfaction that waste constituents present a lower risk of water quality degradation than indicated by this classification. For purposes of this Order the term "designated waste" is defined in Chapter 15.^a
4. Discharge of liquid or semi-solid waste (i.e., waste containing less than 50 percent solids by weight), other than leachate and gas condensate as described in Discharge Specification B.7 and dewatered domestic sludge, is prohibited.^a Exemptions to discharging wastes containing less than 50% solids by weight may be granted by the Executive Officer if the Discharger can demonstrate the discharge will not exceed the moisture holding capacity of the Landfill either initially or as a result of waste management operations, compaction, and/or settlement.
5. Discharge of waste to ponded water from any source is prohibited.^a
6. Ponding of liquids over solid wastes is prohibited.
7. Discharge of leachate or gas condensate containing hazardous concentrations of constituents is prohibited.
8. Discharge of wastes which have the potential to reduce or impair the integrity of containment structures is prohibited.
9. Discharge of wastes which, if comingled with other wastes, could produce violent reaction, heat or pressure, fire or explosion, toxic by-products, or reaction products, which in turn:^a
 - a. require a higher level of containment than provided by the Landfill,
 - b. are restricted hazardous wastes, or
 - c. impair the integrity of containment structures,is prohibited.
10. Discharge of wastes within five feet of the highest anticipated elevation of underlying ground water, including the capillary fringe, is prohibited.^a
11. Discharge of waste within 50 feet of the property line, 100 feet of surface waters, or 100 feet of any unsealed domestic water supply wells is prohibited.
12. Discharge of solid or liquid waste or leachate to surface waters, drainageway(s), or ground water, is prohibited.
13. Discharge of waste containing free liquid or moisture in excess of the waste's moisture holding capacity is prohibited. Waste must pass the paint filter test to determine if free liquids are present.^{a,d}
14. Discharge of waste solvents, dry cleaning fluids, paint sludges, pesticides, phenols, brines, and acid and alkaline solutions is prohibited.^a
15. Discharge of oils or other liquid petroleum products is prohibited.^a
16. Discharge of chemical and biological warfare agents is prohibited.^a

B. DISCHARGE SPECIFICATIONS

1. The Discharger shall implement the attached Monitoring and Reporting Program No. 93-69 (MRP) in order to detect, at the earliest opportunity, any unauthorized discharge of waste constituents from the Unit, or any unreasonable impairment of beneficial uses associated with discharges of waste to the Unit.^a
2. Discharge of waste shall not cause the concentration of any Constituent of Concern or Monitoring Parameter to exceed its respective background value in any monitored medium at any Monitoring Point assigned to Detection Monitoring pursuant to the current version of the MRP.
3. Discharge shall not cause the release of pollutants, or waste constituents in a manner which could cause a condition of pollution, or nuisance to occur, as indicated by the most appropriate statistical [or non-statistical] data analysis method and retest method listed in MRP Part III.^{a,f}
4. The discharge shall neither cause nor contribute to pollution of ground water via the release of waste constituents in either liquid or gaseous phase.
5. The discharge shall neither cause nor contribute to any surface water, pollution, or nuisance, including, but not limited to:
 - a. floating, suspended, or deposited macroscopic particulate matter or foam;
 - b. increases in bottom deposits or aquatic growth;
 - c. adverse changes in temperature, turbidity, or apparent color beyond natural background levels;
 - d. the creation or contribution of visible, floating, suspended, or deposited oil or other products of petroleum origin; and/or
 - e. the introduction or increase in concentration of toxic or other pollutants/contaminants resulting in unreasonable impairment of beneficial uses of waters of the State.
6. Unsaturated Zone: Discharge shall not cause any increase in the concentration of waste constituents in soil-pore gas, soil-pore liquid, soil, or other geologic materials outside of the Landfill if such waste constituents could migrate to waters of the State, in either the liquid or the gaseous phase, and cause a condition of pollution/or nuisance.
7. Water (including non-hazardous and non-designated leachate and gas condensate) used during disposal site operations shall be limited to a minimal amount reasonably necessary for dust control, construction (soil compaction), and vegetation establishment/irrigation purposes. Water, leachate and condensate, used at the Landfill, shall not infiltrate into areas containing wastes.
8. Disposal site operations shall not be a source of odor nuisance.
9. The Discharger shall prevent habitat formation for carriers of pathogenic organisms.^e
10. The handling and disposal of friable asbestos containing wastes shall be in accordance with all applicable federal, state, and local statutes and regulations.
11. Ash wastes may be discharged in the Landfill only when chemical analyses are provided to the Executive Officer's satisfaction that the waste is non-hazardous.^a
12. As of the adoption date of this Order, the Discharger shall remove and relocate any wastes discharged in violation of these requirements.

November 16, 1993

13. All refuse material that is wind-blown outside the Landfill area shall be collected regularly and disposed in the Landfill. If wind-blown litter is or becomes a continuing problem, containment barriers (e.g., screens and/or fences) shall be constructed to prevent spreading of refuse.
14. The Discharger shall obtain and maintain a Board approved Financial Assurance Instrument (Instrument) to demonstrate financial responsibility for initiating and completing corrective action for all known or reasonably foreseeable releases from the landfill until the end of the Post-Closure Maintenance Period, pursuant to Chapter 15 regulations. The Instrument shall be legally valid, binding and enforceable under State and Federal law.^a
15. The Discharger shall operate the Landfill in conformance with a Site Operations Plan approved by the Executive Officer, except where the plan(s) conflicts with this Order. In the event of conflict, this order shall govern in cases where it is the most conservative. Any changes to the Site Operations Plan that may affect compliance with this Order must be approved in writing by the Executive Officer.
16. A program for periodic intake load-checking shall be maintained to ensure that 'hazardous waste', 'designated waste' and 'radioactive waste' are not discharged at this Landfill.^a
17. The Discharger shall not discharge municipal solid waste (MSW) to a wetland - as defined in 40 CFR Section 232.2(r) - or to any portion thereof, unless the Discharger successfully completes all demonstrations required for such discharge pursuant to 40 CFR Section 258.12(a).

Such demonstration shall be based upon an Executive Officer approved report addressing compliance with Section 404 of the Federal Clean Water Act, as listed in 40 CFR Section 258.12(a)-(a) (f).^d

18. Refuse shall be covered daily by at least six inches of cover material or, if allowed by the Local Enforcement Agency, meet Performance Standards of the California Code of Regulations, Title 14, Section 17683. Cover material shall promote lateral runoff of rainfall away from the active disposal area. Upon Executive Officer approval, alternative daily cover materials may be utilized. Long-term alternatives to the daily cover requirements must satisfy the Alternative Daily Cover Procedures and be approved by the CIWMB.^{a,b}

Wet Weather

19. By November 1, of each year, all necessary runoff diversion and erosion prevention measures shall be in place, and all necessary construction, maintenance, or repairs of precipitation and drainage control facilities shall be completed to prevent erosion or flooding of the Landfill and to prevent surface drainage from contacting or percolating through wastes.^a
20. All landfill surfaces and working faces shall be graded and operated to minimize rainfall infiltration into wastes, to prevent ponding of water, and to resist erosion. Positive drainage to divert rainfall runoff from areas containing waste shall be provided.
21. Drainage ditches crossing over landfill areas shall be lined with material which provides an effective permeability of 10^{-6} cm/sec or less. If material other than clay or synthetic is used, data must be provided to, and approved by, the Executive Officer. The drainage facilities shall be designed and constructed to accommodate anticipated and peak surface runoff flows from a 100-year, 24-hour event.

Storm Runoff

22. Water collected in the storm water catchment basin or site water treatment facility may be used in minimum amounts necessary for dust-control, compaction, or irrigation of cover vegetation provided none of the water infiltrates past the root zones of vegetation or past a depth where effective evaporation can occur.
23. Waste containment barriers shall be maintained to ensure their effectiveness.^{a,b}
24. The Discharger shall monitor potential releases from the site related to surface water runoff by complying with all NPDES Stormwater Monitoring Program requirements.
25. Storage facilities associated with precipitation and drainage control systems shall be emptied immediately following each storm, or otherwise managed, to maintain the design capacity of the system.^a
26. If adequate daily cover material is not accessible during inclement weather, such material shall be stockpiled during favorable weather to assure compliance.
27. By November 1, of each year, a minimum one-foot thick soil cover which is compacted and sloped to minimize permeability (i.e., intermediate cover), and designed to minimize water infiltration and erosion, shall be placed over all Landfill areas which do not have such a cover. Intermediate cover shall be graded to a slope of at least 3%, but not greater than 10% unless adequate erosion controls are implemented and approved by the Executive Officer. Hydroseeding (or other erosion control method) shall be performed when soil moisture conditions are adequate to support vegetation (usually immediately following the first rainfall after October 1 of each year). Soil amendments may be used on intermediate

cover following approval of the Executive Officer. Intermediate cover is not required on wet weather disposal areas.

28. Vegetation grown on intermediate and final covered areas shall be selected to minimize irrigation, minimize erosion, minimize moisture infiltration, and shall not impair the integrity of containment structures including final cover. Soil amendments and fertilizers (including wastewater sludge) used to establish vegetation shall not exceed the vegetation's agronomic rates (i.e., annual nutrient needs), unless approved by the Executive Officer.
29. During winter months, disposal activity shall be confined to the smallest area practical based upon anticipated quantity of wastes and operational procedures.
30. ~~The Discharger shall monitor potential releases from the site related to surface water runoff by complying with all NPDES Stormwater Monitoring Program requirements.~~
31. Surface drainage from tributary areas and internal site drainage of surface and subsurface origin shall not be allowed to contact or percolate through wastes.
32. A minimum of two feet of freeboard shall be maintained in all rainfall runoff containment ponds.^a

Design

33. Waste management units, containment structures, and drainage facilities shall be designed, constructed and maintained to limit, to the greatest extent possible, ponding, infiltration, inundation, erosion, slope failure, washout, overtopping, and other damage due to natural disasters (e.g., floods with a predicted frequency of once in 100 years, the maximum probable earthquake, and sever wind storms).^a
34. Waste management units, containment structures and drainage facilities shall be designed and constructed under the direct supervision of a California registered civil engineer or a certified engineering geologist, and shall be certified by that individual as

meeting the prescriptive standards and performance goals of all state and federal regulations including, but not limited to Chapter 15, Title 14 and Subtitle D, prior to waste discharge.^a

35. Discharges of waste to any lateral expansion (i.e., a horizontal expansion of the waste boundaries) of a municipal solid waste (MSW) landfill unit are prohibited unless the discharge is to an area equipped with a system, which contains:^d

- 1) A composite liner and a leachate collection and removal system. The liner must consist of two components:

a) Upper Component: A minimum 40-mil flexible membrane liner (FML) or a minimum 60-mil high density polyethylene (HDPE). The FML component must be installed in direct and uniform contact with the compacted soil component.

b) Lower Component: A minimum two-foot layer of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec.; or

- 2) An engineered alternative to the above prescriptive design. Engineered alternative designs must meet specified conditions and performance standards, as determined by the Executive Officer, for the protection of water quality.

36. Permeability determinations shall be as specified in Article 4 of Chapter 15. Permeabilities specified for containment structures other than cover shall be relative to the fluids, including waste and leachate, to be contained. Permeabilities specified for cover shall be relative to water. Liner and cover permeabilities shall be determined primarily by appropriate field test methods in accordance with civil engineering practice (double ring infiltrometer test is required). The results of laboratory tests with both water and

leachate, and field tests with water, shall be compared to evaluate how the field permeabilities will be affected by leachate. Appropriate compaction tests may be used in conjunction with laboratory permeability tests to determine field permeabilities as long as a reasonable number of field permeability tests are also conducted.^a

37. Leachate collection and removal systems shall be installed immediately above all liner systems, and shall be designed, constructed, maintained and operated to collect and remove twice the maximum anticipated daily volume of water/leachate from the Unit.^d

38. Hydraulic head shall not be allowed to build on any portion of the liner. The depth of fluid in any collection sump shall be kept at the minimum needed to ensure efficient pump operation.^a

39. Areas at final elevations, 500 feet above mean sea level, shall be covered with final cover pursuant to Section 2581 of Chapter 15 including from bottom to top:^a

a. at least a two foot foundation layer placed over waste;

b. a low permeability geomembrane or compacted clay with an in-place permeability 1×10^{-6} cm/sec, or no faster than the permeability of underlying natural geologic materials, which ever is less; and

c. at least one foot of soil capable of supporting vegetation, resisting erosion, and protecting the underlying low permeability layer.

Hydraulic conductivity of a low-permeability soil layer shall be determined by both laboratory and in-place field testing. Permeability determinations for cover materials shall be as specified in Article 4 of Chapter 15 and shall be appended to the final closure and post-closure maintenance plan. Construction methods and quality assurance procedures shall be submitted to the Executive Officer, and shall insure all parts

of the low-permeability layer meet the hydraulic conductivity and compaction requirements. The final cover shall be graded to a slope of at least 3%, but not more than 10% unless adequate erosion control measures are implemented and approved by the Executive Officer.

40. Discharger shall notify Board staff within 24 hours by telephone and within seven days in writing, of any noncompliance potentially or actually endangering health or the environment. Any noncompliance which threatens the landfill's containment integrity shall be promptly corrected. All correction methods and schedules shall be approved by the Executive Officer, except when delays will threaten the environment and/or the Landfill's integrity (i.e., emergency corrective measures). Corrections initiated prior to Executive Officer approval shall be so stated in the written report. The written report shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times or anticipated duration; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. This provision includes, but is not limited to:
 - a. violation of a discharge prohibition;
 - b. violation of treatment system's discharge limitation;
 - c. slope failure; and
 - d. leachate seep occurring on, or in proximity to, the Landfill which result in a discharge of leachate to surface waters or to ponded areas.
41. The leachate collection and removal system (LCRS) shall:
 - a. be designed and constructed, to the satisfaction of the Executive Officer, to prevent the development of hydraulic head on the liner; and

- b. convey to a sump, or other appropriate collection area, all leachate reaching the liner. The LCRS shall not rely upon unlined or clay-lined areas for leachate conveyance.*

Closure

42. All Landfill areas at final elevations, which will not receive additional refuse in the future, shall receive a final cover which is designed and constructed to function with the minimum maintenance possible. Landfill areas shall be graded to a slope of at least 3%, but not more than 10% unless adequate erosion control measures are implemented. Final cover shall be protected or designed and constructed to prevent wind and water erosion and minimize moisture infiltration. The final cover must have a permeability less than or equal to the permeability of the bottom liner system or natural subsoils, or no greater than 1×10^{-6} cm/sec, whichever is less. The Discharger shall ensure the final cover meets all prescriptive and/or performance standards as specified in Chapter 15, Title 14, and Subtitle D regulations.*
43. The Discharger shall implement final closure activities as the site operation progresses (e.g., within 30 days after a particular Unit or portion of a Unit reaches final fill elevation, final closure cover must be provided), in accordance with requirements consistent with the closure of the entire site, as approved by the Executive Officer and the CIWMB in accordance with the most recently approved closure plan.^{ab}
44. Alternative intermediate and final cover designs may be considered for Executive Officer approval, if such designs provide equivalent reduction in infiltration and protection from wind and water erosion.^{ab}
45. Methane and other landfill gases and vapors shall be vented, extracted or otherwise controlled to prevent explosions, adverse health effects, nuisance conditions, and/or the impairment of beneficial uses of water due to

migration through the vadose (unsaturated) zone. Discharger shall comply with gas control requirements pursuant to Title 14 regulations.^{a,b}

Site Specific

46. Reports of compliance or noncompliance with, or any progress reports on interim and final requirements contained in any compliance schedule, shall be submitted within 14 days following each scheduled date unless otherwise specified within the Order. If reporting noncompliance, the report shall include a description of the reason, a description and schedule of tasks necessary to achieve compliance, and an estimated date for achieving full compliance. A second report shall be submitted within 14 days of full compliance.^c
47. Reports shall be submitted in advance of any planned changes in the permitted facility or in an activity which could potentially or actually result in noncompliance.
48. Treated ground water applied to the Landfill for irrigation/dust control shall not exceed the moisture holding capacity of the soil, or infiltrate past the root zones of vegetation.^a
49. Waste containment barriers shall be maintained to ensure their effectiveness.
50. Final elevation shall not exceed 500 feet above mean sea level.

C. WATER QUALITY PROTECTION STANDARDS

1. Water Quality Protection Standard (WQPS or Standard). The five parts of the Water Quality Protection Standard [Standard] of §2550.2 of Article 5 are as follows:

a. Constituents of Concern [§2550.3]. The list of Constituents of Concern (1) for water-bearing media [i.e., ground water, surface water, and soil pore liquid] consists of all constituents in Appendix II of 40 CFR Part 258 in addition to Total Dissolved Solids (TDS), Sulfate, Carbonate, pH, and Chloride, and (2) for soil pore gas consists of all volatile organic constituents [VOC] detectable via gas chromatography. Constituents of Concern, and many other terms of Article 5 used in this Order, are defined in MRP No. 93-69, Part III.B., which program is hereby incorporated by reference.

b. Concentration Limits [§2550.4]. For each Monitoring Point assigned to a Detection Monitoring Program [MRP Part I.D.4.], the Concentration Limit for each Constituent of Concern [or Monitoring Parameter] shall be its background value as obtained during that Reporting Period [defined in MRP No. 93-69, Part III.B.], as follows:

- (1) If 10% or more of the samples taken during a given Reporting Period from the Background Monitoring Points for a monitored medium exceed their respective Facility-Specific Method Detection Limit [MDL]" (see MRP Part III.B.) for a given constituent, then the Concentration Limit for that medium and constituent shall consist of the mean [or median, as appropriate] and standard deviation [or other measure of central tendency, as appropriate] of all the background data obtained for that constituent from that medium during that Reporting Period; otherwise

- (2) the Concentration Limit for that medium and constituent shall be its MDL.
- c. Monitoring Points and Background Monitoring Points for Detection and Corrective Action Monitoring shall be those listed in MRP Part I.D.2.
- d. Point of Compliance. The Point of Compliance follows the edge of the Landfill's "Designated Disposal Area" and includes the groundwater/leachate extraction system (GLCRS) as shown on Attachment B, and extends vertically down through the uppermost aquifer.^a
- e. Compliance Period. The estimated duration of the Compliance Period for this Unit is 31 years. Each time the Standard is exceeded (i.e., a release is discovered), the Landfill begins a Compliance Period on the date the Board directs the Discharger to begin an Evaluation Monitoring Program. If the Discharger's Corrective Action Program (CAP) has not achieved compliance with the Standard by the scheduled end of the Compliance Period, the Compliance Period is automatically extended until the Unit has been in continuous compliance for at least three consecutive years.^a
2. Monitoring Parameters for Detection Monitoring. The monitoring parameters for water and soil pore gas shall be selected to ensure early detection of a contaminant release. The monitoring parameters for detection monitoring are listed in MRP Part I.D.2.
3. Additional Monitoring Points or Background Monitoring Points. The Discharger shall, in a timely fashion, install any additional ground water, soil pore liquid, soil pore gas, or leachate monitoring devices required to fulfill the terms of any Discharge Monitoring Program issued by the Executive Officer.
4. The concentrations of indicator parameters or waste constituents in waters passing through the Points of Compliance shall not exceed the "Water Quality Protection Standards" (WQPS) established pursuant to Monitoring and Reporting Program No. 93-69, which is attached to and made part of this Order.^a
5. Discharge shall not cause a statistically significant increase of mineral constituent concentrations in underlying ground water.
6. Discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board.
7. Discharge shall not cause concentrations of chemicals and radionuclides in ground water to exceed limits set forth in Title 22, Chapter 15, Articles 4 and 5 of the California Code of Regulations.
8. Discharge of waste shall not cause ground water in downgradient wells to exceed the State Department of Health Services latest recommended Drinking Water Action Levels.
- D. PROVISIONS**
1. Order No. 85-88 "Waste Discharge Requirements for Santa Barbara County, Department of Public Works, Tajiguas Class III Landfill" adopted by the Board June 14, 1985, is hereby rescinded.
2. Discharger shall comply with "Monitoring and Reporting Program No. 93-69", as specified by the Executive Officer.
3. The Discharger shall maintain a copy of this Order at the Landfill and make it available at all times to regulatory agency personnel and to facility operating personnel. The Discharger shall familiarize operating personnel of the requirements and contents of this Order.

4. Discharger shall comply with all other applicable provisions of Chapter 15, Title 14, and Subtitle D that are not specifically referred to in this Order. If any applicable regulation requirements overlap or conflict in any manner, the most conservative requirement shall govern in all cases, unless specifically stated otherwise in this Order, or as directed by the Executive Officer.
5. The Discharger shall maintain legible records of the quantity and type of each waste discharged at each waste management unit and the manner and location of discharge. Such records shall be maintained at the Landfill, or other Executive Officer approved location, until the beginning of the post-closure maintenance period. These records shall be available for review by representatives of the Board and of the State Water Resources Control Board at any time during normal business hours. At the beginning of the post-closure maintenance period, copies of these records shall be sent to the Board.^a
6. The Discharger shall be responsible for accurate waste characterization, including determinations of whether or not wastes will be compatible with containment features and other wastes and whether or not other wastes are required to be managed as hazardous wastes.^a
7. A list of the general types of the more widely used names of hazardous-type wastes prohibited at this site shall be posted on a legible roadway sign at the entrance in both English and Spanish. The sign shall also state the locations of the nearest hazardous waste disposal sites and shall list penalties for illegal dumping. A specific list of Hazardous Wastes and other types of materials prohibited at this Landfill shall be provided to commercial waste haulers that use this Landfill and shall be available to all other site users upon request.
8. The Discharger shall have a continuing responsibility to assure protection of usable waters from discharged waste and from gases and leachate generated by discharged waste during the Landfill's active life, closure, and post-closure maintenance period, and during subsequent use of the property for other purposes. This Board considers the Discharger to have an on-going responsibility for correcting problems resulting from this waste discharge.
9. The Discharger or persons employed by the Discharger shall comply with all notice and reporting requirements of the State Water Resources Control Board with regard to construction, alteration, destruction, or abandonment of all monitoring wells used for compliance with this Order or with the most recent version of the Monitoring and Reporting Program, as required by Section 13750 through 13755 of the California Water Code.^f
10. The Discharger shall notify the Board in writing of any proposed change in ownership or responsibility for construction or operation of the facility. This notification shall be given at least 90 days prior to the effective date of the change and shall be accompanied by an amended Report of Waste Discharge and any technical documents that are needed to demonstrate continued compliance with these WDRs. In the event of any change in ownership of this waste management facility, the Discharger shall notify the succeeding owner or operator, in writing, of the existence of this Order. A copy of that notification shall be sent to the Board.^a

11. To assume operation under this Order, the succeeding owner or operator shall apply in writing to the Executive Officer requesting transfer of the Order. The request shall contain the requesting entity's full legal name, the state of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Board, and a statement. The statement shall indicate that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request a violation of the California Water Code (i.e., discharge without requirements). Transfer may be approved or disapproved in writing by the Executive Officer.^f
 12. To assume operation under this Order, the succeeding owner or operator must apply in writing to the Executive Officer requesting transfer of the Order. The request must contain the requesting entity's full legal name, the State of incorporation if a corporation, the name and address and telephone number of the persons responsible for contact with the Board, and a statement. The statement shall comply with the signatory paragraph of Provision D.28., below, and state that the new owner or operator assumes full responsibility for compliance with this Order. Failure to submit the request shall be considered a discharge without requirements, a violation of the California Water Code. Transfer may be approved or disapproved in writing by the Executive Officer.^f
 13. The Discharger shall submit to the Regional Board and the California Integrated Waste Management Board (CIWMB) for approval a closure and post-closure maintenance plan (Closure Plan) by February 1, 1995, describing the methods and controls to be used to assure protection of the quality of surface and ground waters of the area during partial and final closure operations and during any proposed subsequent use of the land. The Closure Plan must include:^a
 - a. a description of the final cover, designed in accordance with all applicable State and Federal regulations and the methods and procedures to be used to install the cover;
 - b. an estimate of the largest area of the MSW landfill Unit ever requiring a final cover at any time during the active life;
 - c. an estimate of the maximum inventory of wastes disposed over the active life of the landfill facility;
 - d. a schedule for completing all activities necessary to satisfy all closure criteria as required by Chapter 15, Title 14, and Subtitle D regulations;
 - e. an estimate of closure and post closure maintenance costs;
 - f. a proposal for an enterprise fund or equivalent financial arrangement to provide sufficient funding for closure and post-closure maintenance; and
 - g. the amount to be deposited in the trust fund or equivalent financial arrangement each year.
- The Closure Plan shall be updated annually, and revisions submitted to the Regional Board by the 1st day of February of each year starting in 1996. The method identified for each Units' closure and to maintain protection of the quality of surface and ground waters shall comply with waste discharge requirements established by the Regional Board. Such Waste Discharge Requirements must reflect the most current version of the Closure Plan. The Closure Plan report shall be consistent with all applicable State and Federal regulations, including Chapter 15, Title 14, and Subtitle D. If the Closure Plan requires updating prior to final closure, an updated plan shall be submitted at least 180 days prior to final closure.

14. The Discharger shall notify the Board at least 180 days prior to beginning any partial or final landfill closure activities. The notice shall include a statement that all closure activities will conform to the most recently approved Closure Plan and that the Plan provides for closure in compliance with all applicable state and federal regulations. If there is no approved Closure Plan, the Discharger shall submit a complete Closure Plan at least 240 days prior to beginning any anticipated Landfill closure activities.
15. The Discharger shall notify the Board of a material change in the character, location, or volume of the waste discharge and of any proposed expansions. Notice shall include information on the quality and quantity of waste discharge and the anticipated impact of the waste upon water quality and Landfill operations. This notification shall be given at least 120 days prior to the proposed effective date of the change and shall be accompanied by an amended Report of Waste Discharge and any technical documents that are needed to demonstrate continued compliance with this Order.^a
16. The Discharger shall submit to the Executive Officer for review and approval a periodic load-checking program. The load checking program shall be adequately designed to ensure that "hazardous wastes" and "designated wastes" are not discharged to the WMU. The load checking program shall be submitted by May 1, 1994. The program shall include, but not be limited to:
 - a. the number of random loads to be checked per month and/or year;
 - b. training program for on-site personnel;
 - c. record keeping and reporting program;
 - d. program implementation schedule;
 - e. alternatives for waste found to not be in compliance with these waste discharge requirements; and
 - f. sign posting at the facility.
17. The Discharger shall immediately notify the Board of any flooding, equipment failure, slope failure, or other change in site conditions which could cause violation of this order or which could impair the integrity of wastes or leachate containment facilities or of precipitation and drainage control structures.
18. The Discharger shall report to the Executive Officer all changes in usage of daily cover and performance standards within five business days following the desired change.
19. Prior to May 1, 1994, the Discharger shall submit a current Site Operations and Development Plan, consistent with Section 2596 of Chapter 15, for approval by the Executive Officer which includes: a description of current storage and disposal methods; contingency plans for failure or breakdown of waste handling facilities or containment systems, including notice of any such failure (or any detection of waste or leachate in monitoring facilities) to the Board, local governments, and water users downgradient of waste management units; and description of inspection and maintenance programs which will be undertaken regularly during disposal operations and the post-closure maintenance period.
20. The Discharger shall submit a complete liner system design report for Executive Officer consideration of any new WMU use and construction, at least 180 days prior to WMU development. The design report shall adequately address any proposed deviation from the most currently approved fill sequencing plan. It must adequately address all applicable requirements of state (Chapter 15 and Title 14) and federal (Subtitle D) landfill regulations.^a

21. Prior to May 1, 1994, the Discharger shall submit a technical report addressing compliance with all terms of this Order. The report shall include a detailed implementation schedule for all work required by this Order.
22. If the Discharger or the Board, through a detection monitoring program, verifies that Water Quality Protection Standards (WQPS) have been exceeded at or beyond the Points of Compliance and the horizontal and vertical extent of pollution has been determined, the Discharger shall notify or acknowledge the Board's findings in writing within seven days. Within 180 days, the Discharger shall submit to the Board an amended Report of Waste Discharge (ROWD) for establishment of a corrective action program per Section 2550.10 of Chapter 15, which is designed to achieve compliance with the WQPS.^a
23. The Discharger shall obtain and maintain the following Financial Assurance Instrument (Instrument) until the end of the Post-Closure Maintenance Period. The Discharger intends to utilize an Enterprise Fund in general conformance with the guidelines contained in Title 14, CCR, Section 18285. The Discharger shall submit a report every five years that either validates the Instrument's ongoing viability or proposes and substantiates any needed changes [e.g., a documented increase in the monitoring systems' ability to provide reliable early detection of a release can cause a decrease in the Instrument's financial coverage]. The first report is due by November 1, 1994 and subsequent reports are due every five years thereafter.^{ab}
24. At any time, the Discharger may file a written request [including appropriate supporting documents] with the Executive Officer, proposing modifications to the Monitoring and Reporting Program. The request may address changes (a) to any statistical method, non-statistical method, or retest method used with a given constituent or parameter, (b) to the manner of determining the background value for a constituent or parameter, (c) to the method for displaying annual data plots, (d) to the laboratory analytical method used to test for a given constituent or parameter, (e) to the media being monitored [e.g., the addition of soil pore gas to the media being monitored], (f) to the number or placement of Monitoring Points or Background Monitoring Points for a given monitored medium, or (g) to any aspect of monitoring or QA/QC. After receiving and analyzing such a report, the Executive Officer either may reject the proposal for reasons listed, or may incorporate it, along with any necessary changes, into the attached Monitoring and Reporting Program (MRP). The Discharger shall implement any changes in the MRP specified by the Executive Officer.^a
25. The Discharger shall continue, and expand when appropriate, "evaluation" and "corrective action" monitoring programs. The goal of evaluation monitoring is to determine the extent of contamination. Corrective action monitoring is performed to demonstrate corrective action effectiveness.
26. The Discharger shall maintain waste containment facilities and precipitation and drainage controls, and shall continue to monitor, as appropriate, ground water, leachate, soil pore gas and liquids, and surface waters per the current version of the MRP throughout the post-closure maintenance period.^a
27. Except for data determined to be confidential under Section 13267(b) of the California Water Code, all reports prepared in accordance with this Order shall be available for public inspection at the office of the Regional Board.^f
28. All reports shall be signed as follows:^g
 - a. for a corporation; by a principal executive officer of at least the level of vice president;

- b. for a partnership or sole proprietorship; by a general partner or the proprietor, respectively;
 - c. for a public agency; by either a principal executive officer, a ranking elected official, or their "duly authorized representative."
 - d. Engineering reports; by a California Registered Civil Engineer or Certified Engineering Geologist.
29. Any person signing a report makes the following certification, whether its expressed or implied:
- "I certify under penalty of perjury I have personally examined and am familiar with the information submitted in this document and all attachments and, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the information is true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment."
30. The post-closure maintenance period shall continue until the Board determines that remaining wastes in the Landfill will not threaten water quality."
31. Compliance with this Order does not alleviate compliance with permits or orders of other regulatory agencies. This Order is not intended to prevent implementation of more stringent or restrictive requirements imposed by any other agency.
32. The Board may review this Order periodically and will revise these requirements when necessary.
33. The Discharger shall submit a "Wet Weather Preparedness Report" by October 1, of each year. The report must address, in detail, compliance with all wet weather preparedness requirements of this Order, and all other relevant Chapter 15, Title 14, and Subtitle D criteria.
34. By July 1, 1994, the Discharger shall submit a "Report of Monitoring Feasibility" addressing the feasibility of soil pore gas and liquid monitoring, and expansion of ground water monitoring. The report shall include a workplan and time schedule for installing a monitoring system which includes "point of compliance" and "background" monitoring points for all monitored media potentially under the influence of the Landfill. If gas and/or water monitoring is infeasible at any "point of compliance" or "background" monitoring point, the report shall explain why. The monitoring program shall be consistent with Chapter 15 and Subtitle D.
35. By no later than November 1, 1994, Discharger shall install and have in operation a year-round leachate disposal system to prevent migration of leachate past the ground water/leachate collection and removal system if volatile organic constituent concentrations exceed Federal or State Maximum Contaminant Levels (MCL).
36. By no later than July 1, 1994, and annually thereafter, the Discharger shall submit Corrective Action Plan (CAP) reports which discuss the effectiveness of the corrective action measures taken, the effectiveness of the source control measures taken, and propose corrective action and source control modifications and improvements. The reports shall include monitoring data trend analyses, operational summary for the year, an operations plan for next year, and a time schedule for any proposed CAP modification. Submittal of CAP status reports may be terminated following Executive Officer approval.

37. After suspending the CAP measures, the Discharger shall remain in corrective action monitoring until an approved Detection Monitoring Program in accordance with Chapter 15 has been incorporated into waste discharge requirements.^a
38. Any time the Executive Officer determines that the CAP does not satisfy the requirements of Chapter 15, the Discharger shall, within 90 days of receiving written notification of such determination, submit an amended CAP with needed changes pursuant to Water Code section 13267.^{af}
39. The Discharger shall comply with all conditions of this Order. Non-compliance violates state law and is grounds for enforcement action, rescission, or modification of the existing Order.^e
40. Any person failing or refusing to furnish technical or monitoring program reports as required by subdivision (b) of section 13267 of the California Water Code, or falsifying any information provided therein, is guilty of a misdemeanor.^e
41. The Discharger and/or any person who violates waste discharge requirement and/or who intentionally or negligently discharges waste, causes or permits waste to be deposited where it is discharged to waters of the state, may be liable for civil and/or criminal remedies, as appropriate, pursuant to the California Water Code.^e
42. Pursuant to Title 23, Division 3, Chapter 9, of the California Code of Regulations (CCR), the Discharger shall submit a written report to the Executive Officer not later than May 12, 1998, which:
 - a. Discusses whether there will be changes in the continuity, character, location, or volume of the discharge;
 - b. Discusses whether any portion of this Order is incorrect, obsolete, or otherwise in need of revision;
 - c. Addresses all other applicable sections of Article 9, Chapter 15.

I, **WILLIAM R. LEONARD**, Executive Officer, do hereby certify the foregoing is full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, Central Coastal Region, on November 16, 1993.


Executive Officer

Report and Implementation
Date Summary

The Discharger shall comply with the following submittal and implementation schedule for all tasks and/or reports required by this Order:

Task/Report:**Implementation/Due Date:**

Load Checking Program
[Provision D.16.]

May 1, 1994

Site Operations Plan
[Provision D.19.]

May 1, 1994

Technical Compliance Report
[Provision D.21.]

May 1, 1994

Report of Monitoring Feasibility
[Provision D.34.]

July 1, 1994

Corrective Action Plan (CAP)
[Provision D.36.]

July 1, 1994, and yearly
updates due July 1

Updated Closure Plan
[Provision D.13.]

February 1, 1995, and
yearly updates due February 1

Financial Assurance Report
[Provision D.23.]

November 1, 1994, and
every 5 years thereafter

Changes to Landfill
[Provision D.42.]

December 1, 1998

Vegetation placement over entire
Landfill area (active and old fill
area) [Specification B.27.]

Approximately
October 1 of each year

Minimum one foot cover over entire
Landfill [Specification B.27.]

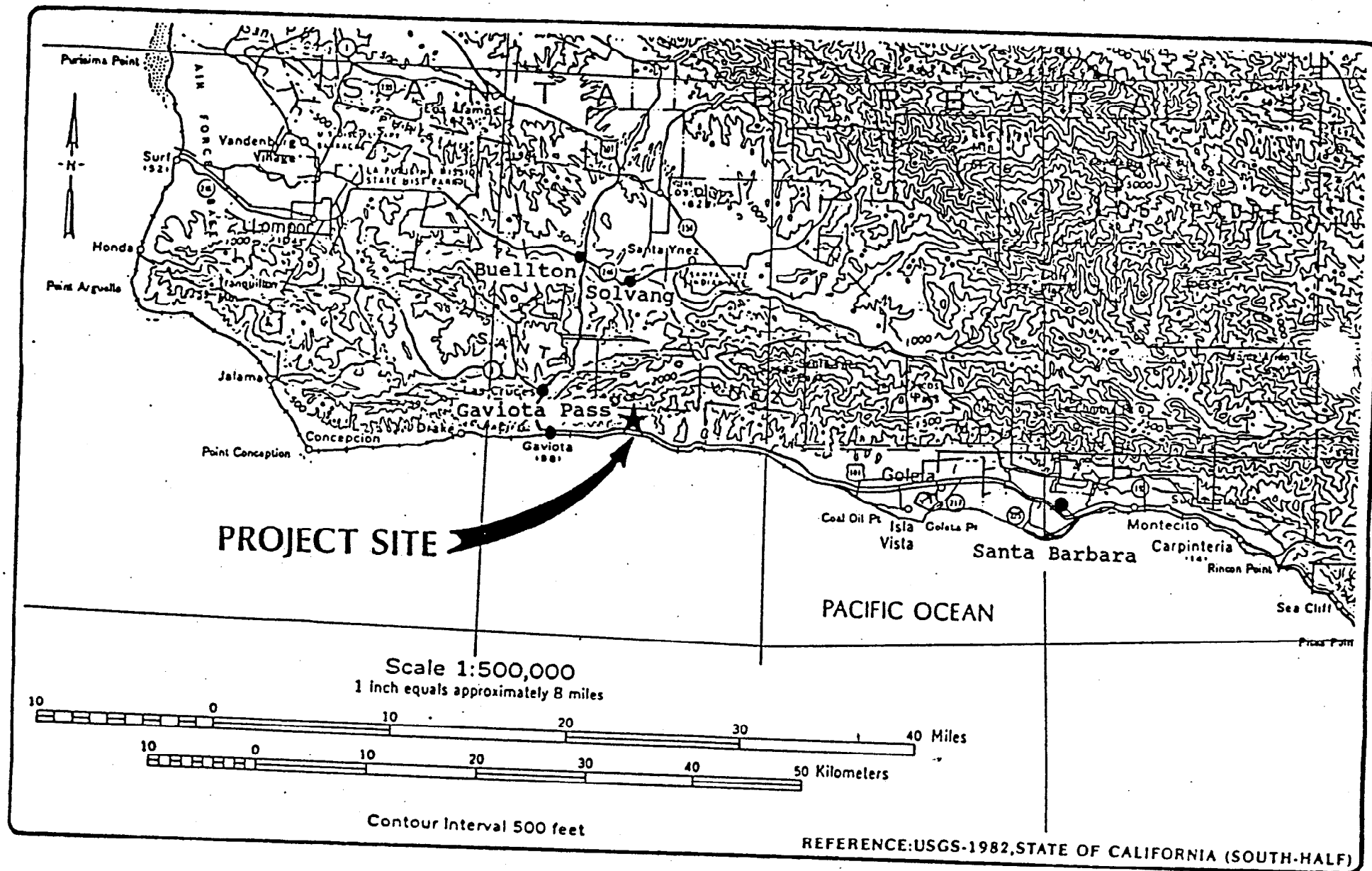
November 1 of each year

Runoff diversion and erosion
prevention [Specification B.19.]

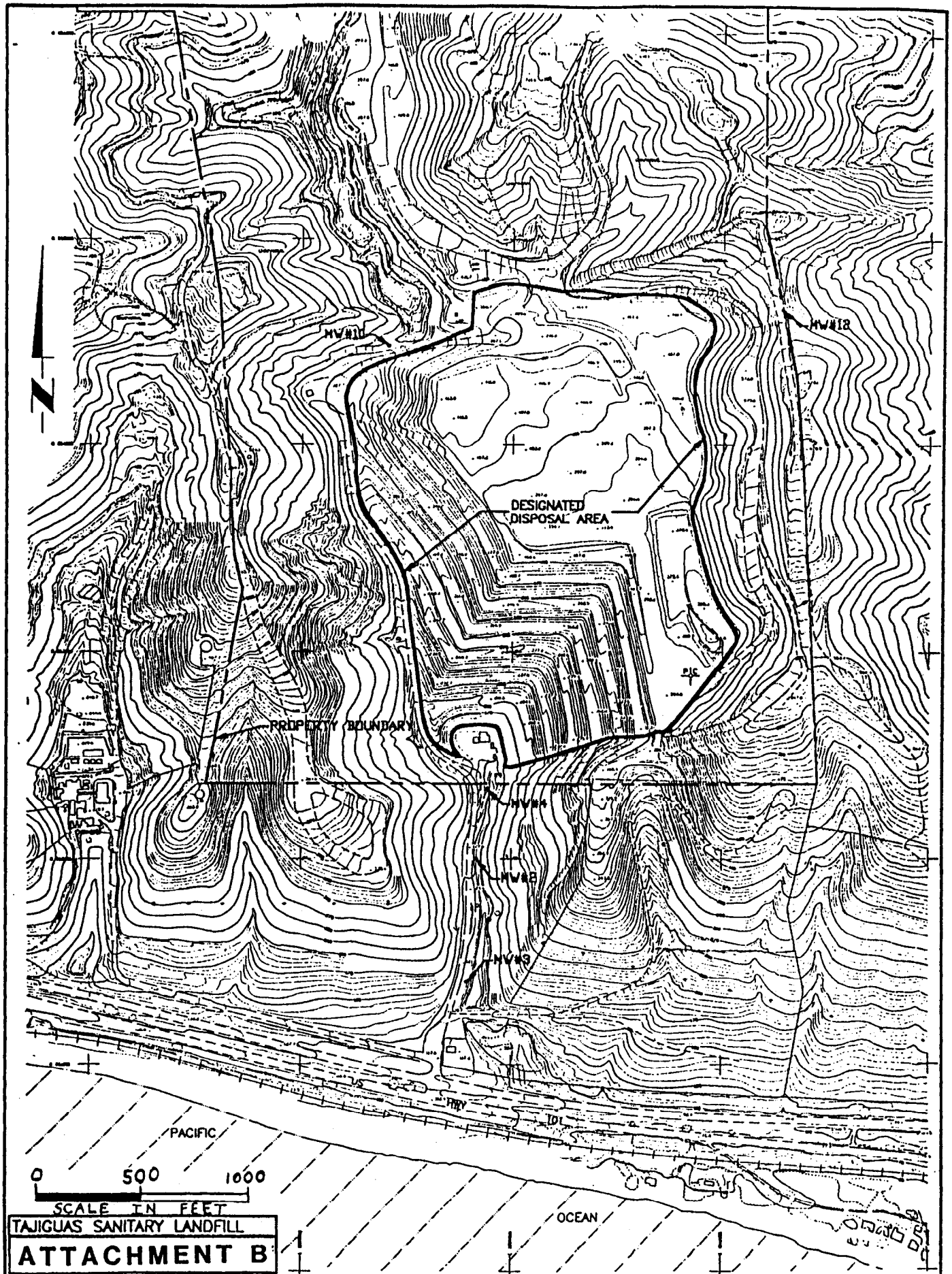
November 1 of each year

Wet Weather Preparedness Report
[Provision D.33.]

October 1, of each year



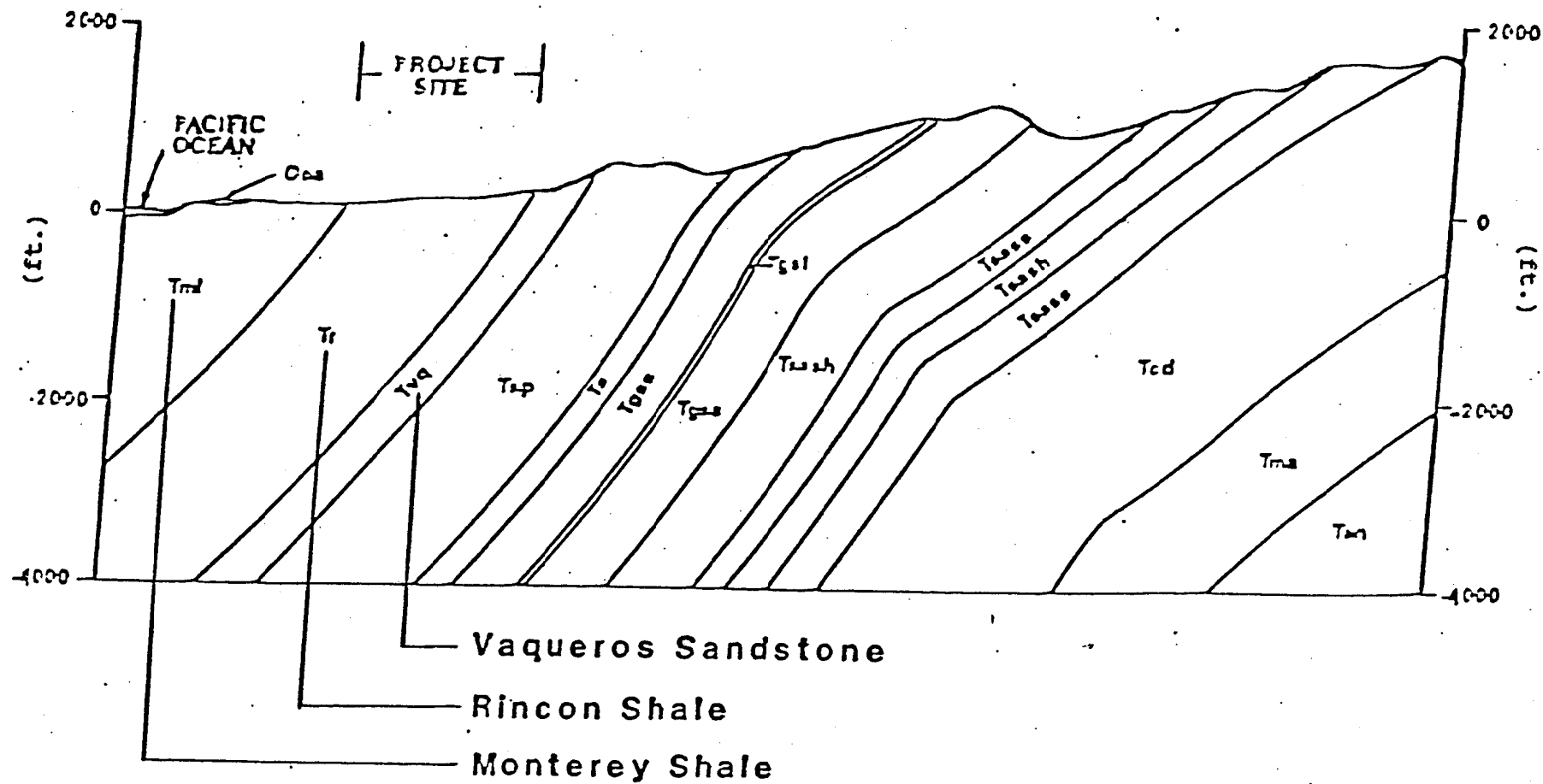
ATTACHMENT A



SOUTH

NORTH

N07W



ATTACHMENT C